Today’s soldiers depend on reliable access to the wireless spectrum. The modern battlefield is filled with equipment that is transmitting and receiving complex wireless signals for communication, GPS, RADAR, and other applications. In critical scenarios, wireless connectivity can mean the difference between mission success and failure.

With so much on the line, the equipment that goes into the field with soldiers needs to work. RF Developers, RF Engineers, and System Integrators need to effectively test signal characteristics and troubleshoot any issues in a variety of different environments before sending devices into the battlefield.
The Challenge

As signal standards become more complex and wireless devices transmit and receive more different types of signals, testing and troubleshooting has become more difficult. Military applications now depend on a variety of high frequency, high bandwidth, and digitally modulated signals.

When it comes to testing these signals, certain measurements now require multiple instruments, complex test setups, and long test times. Traditional lab-based equipment is expensive and lacks the versatility needed to easily switch between signal types, making it poorly suited for these applications and leaving users with less than optimal testing and troubleshooting capabilities.

Users need a cost-effective, high-performance solution for vector signal analysis to look deep into signal properties, identify, troubleshoot, and resolve issues, and conduct multiple measurements simultaneously using a variety of approaches and methods.

QUICK FACTS

Military equipment that is transmitting and receiving RF signals needs to be thoroughly tested before deployment.

Testing modern, complex signals takes time, resources, and may require multiple receivers.

ThinkRF Real-Time Spectrum Analyzers seamlessly integrate with leading Keysight 89600 VSA for powerful vector signal analysis capabilities.
ThinkRF Real-Time Spectrum Analyzers are powerful, versatile, and cost-effective for use in a variety of environments, such as in the lab, in the field, or in a vehicle. Users can test equipment under real-world conditions and ensure that devices are properly transmitting and receiving wireless signals before deploying them into the battlefield.

ThinkRF analyzers are the first third-party platform to fully integrate with the leading Keysight 89600 VSA software for powerful vector signal analysis. Using the ThinkRF E300 Enabler for Keysight 89600 VSA and a standard PC, the combined solution provides users with a complete solution for testing and troubleshooting.

Users can conduct advanced analysis to view signal properties and characteristics, such as demodulation, time and frequency domain analysis, link analysis, and more. Multiple units can be synchronized to increase capabilities and simplify troubleshooting, and the software allows users to take multiple measurements through a shared acquisition, independent acquisition, and fast-switched approach depending on the bandwidths and types of signals being studied.

Benefits of ThinkRF Real-Time Spectrum Analyzers with Keysight 89600 VSA

- Best price-performance ratio on the market allows you to synchronize and use multiple analyzers for faster and more accurate testing
- High frequency performance from 9 kHz to 27 GHz to analyze modern signal standards
- Ability to measure and demodulate digitally modulated signals like W-CDMA, LTE, and WLAN, and up to 75 other signal standards
- Customized measurement displays to show multiple views of your signal at once
- Analyze and display multiple signals at once to enable comparison and correlation of results
- Pinpoint the root cause of problems in time, frequency, and modulation domains
The Results

In mission critical environments, communication infrastructure and equipment needs to work. ThinkRF Real-Time Spectrum Analyzers, combined with leading Keysight 89600 VSA software, provides users with better testing and troubleshooting capabilities. The ability to synchronize multiple units and conduct vector signal analysis reduces the cost, time, and resources required to test and troubleshoot modern signals.

Users gain the full capabilities of the VSA software in a cost-effective, versatile, and high performance solution.

ABOUT THINKRF

ThinkRF is the leader in software-defined spectrum analysis solutions that monitor, detect and analyze complex waveforms in today’s rapidly evolving wireless landscape. Built on patented technology and quality by design principles, the ThinkRF platform offers greater versatility, better performance and additional capabilities for 5G, monitoring, signals intelligence (SIGINT), technical surveillance countermeasures (TSCM), and test and measurement applications. Aerospace and defense companies, spectrum regulators and wireless communications providers use the remotely deployable, PC-driven and easily-upgraded platform to replace traditional lab equipment for wireless spectrum analysis.

For more information, visit www.thinkrf.com, contact info@thinkrf.com or on Twitter, LinkedIn and YouTube.